

REMARKS

The application includes claims 1-4, 7-11 and 16-17 prior to entering this amendment.

The examiner objects to the drawings under 37 C.F.R. § 1.83(a). The examiner requests that the drawings show every feature of the invention specified in the claims.

The examiner rejects claims 1-4, 11 and 17 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The examiner rejects claims 1-2, 7-8 and 16 under 35 U.S.C. § 102(e) as being anticipated by Deb, et al. (U.S. Patent 6,971,045).

The Examiner rejects claims 3-4, 9-11 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Deb.

The applicants amend claims 1, 3-4, 7, 9 and 11 and add new claims 18-21. The application remains with claims 1-4, 7-11 and 16-21 after entering this amendment.

The applicants add no new matter and request reconsideration.

Drawing Objections

The examiner objects to the drawings and specifies that the drawings show every feature of the invention specified in the claims. The applicants amend claims 1, 3 and 4 to be consistent with the drawings and hence, the objection is obviated.

Claim Rejections Under § 112

The examiner rejects claims 1-4, 11 and 17 as being indefinite. The applicants amend claims 1, 3, 4 and 17 as suggested by the examiner.

While rejecting claim 11, the examiner states that claim 9 recites an “ith” series of outputs.¹ Applicant amends claims 9 and 11 to better clarify the scope of the claim. The amended claims do not recite any series of outputs; they rather claim specific signals (*an ith output signal* and *an (i+1)th output signal*, respectively, in claims 9 and 11). This corrects any possible misinterpretation of the claims.

The objection to claims 1-4, 11 and 17 are thus obviated.

Claim Rejections Under § 102

The examiner rejects claims 1-2, 7-8 and 16 as being old over Deb. Applicants traverse the rejection for the following reasons.

Claim 1 recites *an output selection circuit with at least a normal mode and a test mode; where a first group of output signals are provided to a first group of data output pins in a first test cycle of the test mode; where a second group of output signals are provided to the first group of data output pins during a second test cycle of the test mode.* Claim 7 includes similar limitation. The examiner alleges that Deb's output bonding pads 118h-p of figure 5 disclose the recited data output pins. The examiner further alleges that Deb's output circuit 124 of figures 1 and 4, or the comparison circuits 142a-d, multiplex circuits 144a-d, and output switching circuits 158a-d disclose the recited output selection circuit. Note that the output circuit 124 of figure 4 includes a comparison circuit 142 and a multiplex circuit 144, which is similar to the comparison circuits 142a-d and multiplex circuits 144a-d, respectively, of figure 5. The examiner has, however, failed to clearly identify a first and a second group of output signals in Deb's disclosure. The examiner also does not clearly identify where Deb discloses a first test cycle and a second test cycle of a test mode.

Following is the description of Deb's multiplexer circuit 144 and output switching circuit 158 (which, the examiner alleges discloses the recited output selection circuit) of figures 4 and 5.

Deb discloses "the multiplex circuit 144 may select either (i) the output signals OUT_A-M in an operational mode or parametric test mode or (ii) multiple copies of the status signal ST in a test mode as addressed by the control signal MUX_A."² That is, Deb's multiplexer circuit 144 may operate in an operation mode, a parametric test mode or a test mode. But Deb fails to disclose various cycles of a test mode, during which the multiplexer circuit configuration changes. That is, Deb's multiplexer circuit 144 does not have *a first test cycle and a second test cycle* of a test mode during which a first group of output signals are provided to a first group of data output pins and a second group of output signals are provided to the first group of data output pins, respectively, as would be required by claims 1 and 7.

Deb discloses "the output switching circuits 158a-d may provide for interconnecting the output bonding pads 118 from within the IC 104a."³ Put differently, an output switching circuit

¹ Office action dated 12/20/06, page 5, last 2 lines.

² Deb, column 11, lines 39-43.

³ Deb, column 12, lines 42-44.

158a interconnects the output bonding pads associated with it (e.g., the cluster of four bonding pads, including 118p, associated with the output switching circuit 158a), such that all the associated output bonding pads receive the same signal from the output switching circuit during a test mode. This may be possible because the multiplexer circuit 144a outputs multiple copies of a status signal ST in all its output during the test mode.² As a result, “the tester 102 (FIG. 1) may only be connected to one output bonding pad 118 for each cluster of output signals.”⁴ But Deb fails to disclose various cycles of a test mode, during which the output switching circuit configuration changes. That is, Deb’s output switching circuit 158a-d do not have *a first test cycle* and *a second test cycle* of a test mode during which a first group of output signals are provided to a first group of bonding pads and a second group of output signals are provided to the first group of bonding pads, respectively, as would be required by claims 1 and 7.

The examiner, thus, has failed to identify where Deb discloses *a first test cycle* and *a second test cycle* of a test mode during which a first group of output signals are provided to a first group of data output pins and a second group of output signals are provided to the first group of data output pins, respectively, as would be required by claims 1 and 7.

For at least these reasons, claims 1 and 7 are in condition for allowance, along with associated dependent claims.

New Claims

New claims 18-21 are added, support for which may be found throughout the specification and the drawings.

⁴ Deb, column 12, lines 48-50.
AMENDMENT

Conclusion

The applicants request reconsideration and allowance of all claims. The applicants encourage the Examiner to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Customer No. 20575

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.

A handwritten signature in black ink, appearing to read 'Graciela G. Cowger', is written over a horizontal line.

Graciela G. Cowger
Registration No. 42,444

MARGER JOHNSON & McCOLLOM, P.C.
210 SW Morrison Street, Suite 400
Portland, OR 97204
(503) 222-3613